

Claims

1 1. A medical device adapted for insertion into a body of a patient for maintaining a passageway
2 therein, the device comprising:

3 a first hollow member having a first length, a proximal end, and a distal end, at least a
4 portion of the proximal end remaining outside of the body when inserted;

5 a second hollow member having a second length, a proximal end, and a distal end, at
6 least one of the first hollow member and the second hollow member being sized to
7 accept a medical instrument;

8 a length adjustment element in communication with both a distal end of the first hollow
9 member and a proximal end of the second hollow member, wherein the length
10 adjustment element adjustably joins together, coaxially, the first hollow member and
11 the second hollow member, the joined members having a selectable combined length
12 longer than the longest of the first length and the second length.

1 2. The medical device of claim 1, wherein at least one of the first hollow member and the
2 second hollow member comprises a cylinder.

1 3. The medical device of claim 1, wherein at least one of the first hollow member and the
2 second hollow member is comprised of a semi-rigid material.

1 4. The medical device of claim 1, wherein at least one of the first hollow member and the
2 second hollow member is comprised of a material selected from the group including
3 polytetrafluoroethylene (PTFE), fluorinated ethylene propylene (FEP), polyethylene, plastics,
4 and combinations thereof.

1 5. The medical device of claim 1, wherein the first hollow member defines an inner diameter,
2 the second hollow member defines an outer diameter, the inner diameter of the first hollow
3 member being less than the outer diameter of the second hollow member.

1 6. The medical device of claim 1, wherein the medical instrument is a catheter.

- 1 7. The medical device of claim 1, wherein the distal end of the first hollow member includes a
2 beveled edge adapted to facilitate insertion into the body.
- 1 8. The medical device of claim 1, wherein the distal end of the second hollow member defines
2 an end face, the end face being adapted to facilitate insertion into the body.
- 1 9. The medical device of claim 8, wherein the end face resides in a plane, the plane and the
2 longitudinal axis defining an acute angle therebetween.
- 1 10. The medical device of claim 8, wherein the end face includes a chamfered edge adapted to
2 facilitate manipulation within the body.
- 1 11. The medical device of claim 1, wherein the length adjustment element comprises a first
2 thread formed along at least a portion of the distal end of the first member, and a second
3 thread for mating with the first thread and formed along at least a portion of the proximal end
4 of the second member.
- 1 12. The medical device of claim 11, wherein the first thread is a female thread, and the second
2 thread is a male thread.
- 1 13. The medical device of claim 1, wherein the length adjustment element comprises a notch-
2 and-detent system.
- 1 14. The medical device of claim 13, wherein the notch-and-detent system comprises at least one
2 detent extending radially about at least a portion of one end of one of the first and second
3 members, and a plurality of notches extending radially over at least a portion of one end of
4 the other of the first and second members.
- 1 15. The medical device of claim 13, wherein the notch-and-detent system comprises a bi-
2 directional notch-and-detent system allowing for expansion and contraction of the combined
3 length.
- 1 16. The medical device of claim 1, wherein the length adjustment element comprises an
2 interference fit.

- 1 17. The medical device of claim 16, wherein an interior surface of the distal end of the first
2 member overlapping and in frictional communication with a portion of an exterior surface of
3 the proximal end of the second member.
- 1 18. The medical device of claim 16, wherein at least one of the distal end of the first member and
2 the proximal end of the second member defining a slot that extends axially along the at least
3 one of the first and second members from the respective end, thereby enabling a radial
4 deformation of the respective end.
- 1 19. The medical device of claim 16, wherein an elastomeric member is disposed between the
2 distal end of the first member and the proximal end of the second member, the elastomeric
3 member in frictional communication with both the distal end of the first member and the
4 proximal end of the second member.
- 1 20. The medical device of claim 1, further comprising a radiopaque marking, adapted to facilitate
2 positioning of the medical device at a predetermined location within the body.
- 1 21. The medical device of claim 1, further comprising marking upon at least one of the first and
2 second members, the marking being adapted to facilitate adjustment of the selectable
3 combined length.
- 1 22. The medical device of claim 1, further comprising a fastener at the proximal end of the first
2 hollow member adapted for securing a guide wire device.
- 1 23. The medical device of claim 22, wherein the retaining slot provides an interference fit for
2 securing the guide wire device.
- 1 24. The medical device of claim 1, further comprising a locking element adapted for maintaining
2 fixed the selectable combined length.
- 1 25. The medical device of claim 24, wherein the locking device comprises a wedge, the wedge
2 being insertable between at least one of the distal end of the first member and the adjustable
3 element, and the proximal end of the second member and the adjustable element.

1 26. The medical device of claim 24, wherein the locking device comprises a post and groove, the
2 post being slidable along at least a portion of the groove between a free position and a locked
3 position.

1 27. The medical device of claim 1, wherein the combined first member, the length adjustment
2 element, and the second member are substantially fluid tight.

1 28. The medical device of claim 1, further comprising a washer adapted for maintaining a
2 substantially fluid-tight seal.

1 29. A medical device adapted for insertion into a body of a patient for maintaining a passageway
2 therein, the device comprising:

3 a first hollow member for providing an unobstructed passageway from outside of the
4 patient's body to the inside of the patient's body when inserted therein; and

5 a second hollow member in adjustable communication with the first hollow member for
6 extending the unobstructed passageway provided by the first hollow member to a
7 predetermined internal location, at least one of the first hollow member and the
8 second hollow member being sized to accept a medical instrument.

1 30. The medical device of claim 29, wherein the first hollow member has a proximal end and a
2 distal end, the distal end comprising a thread over at least a portion thereof, and the second
3 hollow member has a proximal end and a distal end, the proximal end comprising a mating
4 thread over at least a portion thereof, wherein the first hollow member and the second hollow
5 member are adjustably joined through the mating threads.

1 31. The medical device of claim 29, wherein the first hollow member has a proximal end and a
2 distal end, and the second hollow member has a proximal end and a distal end, at least one of
3 the distal end of the first member and the proximal end of the second member comprising a
4 plurality of notches over at least a portion thereof, and the other of the distal end of the first
5 member and the proximal end of the second member comprising a detent, wherein the first
6 and second members are adjustably joined through the detent and plurality of notches.

1 32. The medical device of claim 29, wherein one end of the first hollow member is in slidable
2 communication with one end of the second hollow member for adjusting an overall length of
3 the combined first and second members.

1 33. The medical device of claim 29, wherein the first hollow member has a proximal end and a
2 distal end, the proximal end comprising a flange for attaching medical instruments thereto.